

MUSEUM STORIES FOR CHILDREN

Presented by

*The James Nelson and Anna Louise Raymond Foundation
for Children's Lectures and Entertainments*



Series XIV, Number 1
July, 1930

FIELD MUSEUM OF NATURAL HISTORY

Roosevelt Road and Lake Michigan

CHICAGO

TRAP PLANTS

Flowers appear to be quiet, peaceful inhabitants of this world. Seldom do we think to ask ourselves how they happen to be here to brighten our gardens and roadsides. I wonder if you know that plants feel and move and take in food. True, they do not have mouths and stomachs like ours. Their mouths are their roots. Through the roots they obtain different kinds of foods from the soils and waters in which they grow. With the aid of the sun these foods are changed into sap which does for the plant what blood does for our bodies.

There are some plants that have queer ways of getting foods. These plants are like ogres. They have little traps which they use to imprison insects and flies. We call such plants "trap-plants" or "meat-eating plants."

The Bladderwort is one of the "trap-plants." It grows below the surface of the water in ponds and bogs. Each plant has one spike of tiny yellow flowers rising above the surface. The flowers are not very showy so, perhaps, you have not noticed them. If you look down among the feathery leaves in the water you will find the traps. Each trap has the appearance of a ball or a seed with a tiny door at one end. As animals swim by, they frequently stop to gaze upon this green plant. Perhaps, they are curious and wonder what is inside; perhaps, they are hungry and think the balls contain food or that one of the little green houses would make an excellent place in which to hide from an enemy. You see it is possible for some tiny creature to push open the door just to see what is there.

When the door is once opened the water rushes in and the force is so great that it carries the little fellow along too. Then the door shuts. No matter how hard the door is pushed from the inside it will not open. After a time, the prisoner dies. But not until its body decays and mixes with the water can the plant eat or absorb it as food.

In the cold, acid water of the bogs are some of the rarest plants. The Pitcher Plant is one of these. Each plant has one purplish blossom and leaves shaped like little pitchers or urns with broad spouts. When rain falls, the pitchers are filled with water. Around the top of each

pitcher is a sweet substance similar to honey. This attracts the insects. Sometimes, they slip and fall into the pitcher of water. With wet wings they can not fly; neither can they crawl out because hairs pointing downward surround the inside of the spout. Thus they are held prisoners and drown.

There are several kinds of Pitcher Plants. Some have pitchers with trap doors, while others have lids which close to prevent overflow of water and loss of prisoners. The Indians called the Pitcher Plant "mi 'niuv makä 'sin" or "horned owl's moccasin." They used the plant in making a medicine and the sorcerers used it in making magic concoctions.

The Sundews with their pink flowers and small reddish leaves are also bog plants. The leaves are covered with red hairs and each hair has a drop on the end of it. The drops glisten like dew in the sunshine. But they are not dew. They are bits of a gluelike substance. Flies stop to drink of this sparkling liquid. Alas! their feet stick fast. As they struggle to get away, other hairs bend over and hold them prisoners. Then the leaves close and squeeze the prisoners to death to furnish the plant with the food which it needs and can get in no other way.

The Venus Flytrap also has a remarkable trap. Each leaf has a flap at the end which is lined with bristles along the edges and has a hinge of sensitive hairs in the center. When a fly alights upon the leaf, the two sides snap shut and the bristles lock together. The fly is caught so quickly there is no chance to escape. The traps stay closed until the fly has been digested by the plant and then open again ready for the next unsuspecting visitor.

MARGARET CORNELL, Guide-lecturer

Note: In Hall 29 are cases showing two kinds of Pitcher Plants, the Bladderwort and the Venus Flytrap. The Heron Case in Hall 20 shows the Pitcher Plant among other plants of similar areas. The next time you visit a pond or bog look for these queer plants. They are well worth knowing.

The open hours are as follows:

November, December, January	-	-	9 A. M. to 4:30 P. M.
February, March, April, October	-	-	9 A. M. to 5 P. M.
May, June, July, August, September	-	-	9 A. M. to 6 P. M.

Field Museum is free to children at all times.

It is free to adults on Thursdays, Saturdays and Sundays.

STEPHEN C. SIMMS, Director

MUSEUM STORIES FOR CHILDREN

Presented by

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Series XIV, Number 2
August, 1930

FIELD MUSEUM OF NATURAL HISTORY

Roosevelt Road and Lake Michigan

CHICAGO

THE STORY OF MR. AND MRS. GARTER SNAKE

These are the days when a picnic to the park or woods is hailed with delight. What fun to roll on the cool green, to watch the ant nurses as they bring out the white-blanketed babies for a sun bath, to listen to the cricket as he plays his wing-fiddle for his lady, or even to watch a snake sunning on a near-by rock.

Perhaps, a toad blinks at you and then suddenly hops out of sight, as Mrs. Garter Snake glides gracefully toward the neighboring brook, as if she had no other thought than to hunt for earthworms on the cool, damp bank of the stream.

These beautifully striped reptiles have been accused of all manner of evils, when, in truth, they are the most harmless of creatures and make very interesting pets. Not only have they no poison or poison glands, but they are unable to inflict a wound of any kind. Should one bite its teeth make little more than a dent and a puncture is no worse than the prick of a pin.

Watch one closely as he thrusts his delicately-forked tongue forward. Perhaps, the tongue is used for feeling unseen objects, as it is constantly vibrating.

There is no external ear for the Garter Snake family to use in hearing. The eyes are well-developed and covered with a transparent layer of the outer skin most beautifully arranged. As there are no eyelids, they never close their eyes. Is it any wonder they see us so quickly?

Although the tongue is attached to the back of the mouth, it lies in a sheath which opens only at the tip. Hence forward is the only motion possible. As it touches an object it is like the sweep of a light, silken thread, and yet, there are some who accuse this fine, flexible organism of injuring people.

When the Garter Snakes feed, which is not often, the tongue lies within its sheath, safe from contact with objects which might destroy its dainty points. The loosely-hinged bones of the head expand and contract to surround the prey. Long, closely-set, claw-shaped teeth aid in holding, drawing in and gulping down the food. Once within the stomach, many juices act upon the unfortunate animal and soon it is in a condition to be digested. The teeth are never used for tearing or chewing food, but do the work of talons and claws. The snakes have no arms or feet with which to grasp, or return the blows of an enemy. When one does bite, it is using the only protective weapon with which Mother Nature has supplied it. And it is more apt to bite on hot days than on cool ones.

You frequently hear that snakes are cold-blooded animals. This is due to the fact that on cool, damp days they are sluggish and not at all interested in food, for their bodies take on the temperature of the atmosphere about them. But should the sun send down hot rays, they at once become interested in life. They breathe more rapidly, the body blood becomes more active and they resent any interruptions to their search for toads, fish or insects. This reaction to heat and cold explains why so much of their time is spent in hibernation in a deep burrow or crevice of the rocks with only a thick skin for covering.

The outer coat of the Garter Snake's skin is made of one loosely-fitting piece so arranged as to lie in scale-like folds which accommodate themselves to every movement of the body. The outer or exposed scales are thicker and stronger than the inner ones. If you ever have an opportunity to pick up a cast-off snake skin be sure to examine it carefully, for it shows the exact shape of the snake's head, the mouth and nostrils, the transparent eye covering and the various forms of the overlapping folds of skin. Notice especially the hard under scales. These are attached, by means of muscles, to the ends of ribs—one pair to each scale or fold. As the ribs are connected to the backbone by ball-and-socket joints, the snake can operate them in any direction desired. When a hundred ribs begin to work at once there is a movement like a flash and the snake is out of harm's way.

Mr. and Mrs. Garter Snake are fastidious creatures. If their coats become soiled or too small, they slip out of them and appear in gorgeous new brown and green ones, often trimmed in dark spots, sometimes, in flecks of red on the sides.

The next time you go to the woods look for these interesting reptiles. The latter part of August is a fine time to see the babies. Sometimes, Mother Garter will have as many as thirty youngsters. Occasionally, one may have seventy-five. As soon as they are born they shed their old coats and scurry to some protecting sticks or stones and only come out for food when you are not looking.

MARGARET M. CORNELL, Guide-lecturer

Note: There are three different kinds of Garter Snakes in the Chicago region. One of them is the long, slender Ribbon Snake of the Dunes. The one you are most apt to see is shown in a reptile case in Hall 18.

Save your Museum Stories. You will find them useful for looking up things you may want to know.

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